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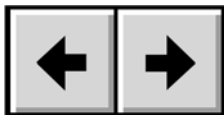
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How to Use This Manual

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On the page:

Click on the text within the Contents page to jump to information on that topic.

Click on any **red text** to automatically jump to more information about that topic.

Printing:

While optimized for onscreen viewing, the pages of this manual are formatted for printing on 8 1/2" x 11" and A4 sized paper, giving you the option to print the entire manual or just a specific page or section.

To Exit:

From the Menu bar at the top of your screen, select: File > Quit.

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Changes

The material in this document is for information only and subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, LaCie assumes no liability resulting from errors or omissions in this document, or from the use of the information contained herein. LaCie reserves the right to make changes or revisions in the product design or the product manual without reservation and without obligation to notify any person of such revisions and changes.

Federal Communications Commission Radio Frequency Interference Statement (FCC)

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

- Reorient or relocate the receiving antennas.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the reseller or an experienced radio/TV technician for help.

Shielded cables and I/O cards must be used for this equipment to comply with the relevant FCC regulations. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any modifications not authorized by the manufacturer may void the user's authority to operate this device.

Canada Compliance Statement

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Manufacturer's Declaration for CE Certification

We, LaCie, solemnly declare that this product conforms to the following European standards:

Class B EN60950, EN55022, EN50082-1, EN60555-2

With reference to the following conditions:

73/23/EEC Low Voltage Directive

89/336/EEC EMC Directive

1. Introduction

Congratulations on the purchase of your new LaCie Big Disk. This hard drive system will give you a unique combination of compatibility and convenience, as well as generous storage capacity. LaCie's Big Disk is ideally suited for a wide range of high-end, high-traffic environments, including: servers, workstations, video/audio editing and database management. For even greater flexibility, your LaCie external hard drive system is also cross-platform, which enables you to use it on both Macs and PCs.

The LaCie Big Disk was designed to allow you to use your desk-space efficiently – included with your LaCie Big Disk is a drive stand, so you can stand the drive vertically, freeing up even more valuable space. Engineered to be rack mountable, you can quickly and easily integrate the LaCie drive into your standard 19-inch computer equipment racks using the LaCie rackmount kit (sold separately).

With all it can do for you, we're confident that your LaCie Big Disk will quickly become an important tool in your day-to-day business and personal computing.

This manual will help you to:

- Install your new device properly
- Get your drive up and running
- Quickly learn how to operate it

1.1 Icons Used in This Manual

Italicized paragraphs feature an icon describing the type of information being given.



Important Note



Technical Information
or News



Warning! (This icon indicates
potential hazard).

Precautions

Always follow the basic precautions to use your LaCie Big Disk safely and correctly. Respecting these guidelines will help to avoid the possibility of personal injury to yourself or others, as well as to prevent damage to your device and other computer equipment. For a complete list of precautions, please see **Chapter 10. Health and Safety Precautions**.

Warranty

LaCie accepts no liability for any loss of data during the use of this device, or for any of the problems caused as a result. Under no circumstances does LaCie guarantee the reliability of the hard drive.

Manual Updates

LaCie is constantly striving to give you the most up-to-date, comprehensive User's Manuals available on the market. It is our goal to provide you with a friendly, easy-to-use format that will help you quickly install and utilize the many functions of your new device.

If your manual does not reflect the configurations of the product that you purchased, please check our Web site for the most current version available. You can access our manuals at: www.lacie.com/support/manuals

1.2 What is FireWire/IEEE 1394?

FireWire is Apple's implementation of IEEE 1394, and is capable of transferring large amounts of data between computers and peripherals at a high rate of speed. A fast, cross-platform serial bus, FireWire is ideal for use with multimedia peripherals and high-speed devices such as digital video cameras and hard drives.

Benefits of FireWire include:

- Digital interface: no need to convert digital data into analog for better signal integrity.
- Small, thin serial cable: replaces today's bulky and expensive interfaces.
- Easy to use: no need for terminators, device IDs, screws, or complex setup.
- Hot-pluggable: devices can be added and removed while the bus is active.
- Scalable: the FireWire standard defines 100, 200 and 400Mb/s devices and can support multiple speeds on a single bus.
- Flexible: the standard supports free-form daisy chaining for peer-to-peer implementations.
- Fast bandwidth: the standard supports delivery of time-critical data which enables smaller buffers (lower cost); also referred to as isochronous data transfer.

FireWire Icons

These icons will help you easily identify the FireWire interface. They appear on FireWire cables and next to the FireWire port connectors on certain computers.



FireWire icon
(Apple IEEE 1394)



iLink icon
(Sony IEEE 1394)



DV icon (IEEE 1394 logo
mainly used on digital cameras)

1.3 LaCie Storage Utilities Software

The LaCie Storage Utilities CD is a hybrid CD-ROM that has the Mac version, **Silverlining Pro** and **SilverKeeper**, and the PC version, **Silverlining 98**, on the same CD. Mac users will be able to only view and use the Mac portion, and PC users will be able to only view and use the PC version.

Mac Users Using Mac OS 9.x

Please see the Silverlining and SilverKeeper manuals for instructions on how to use this software. The manuals are located on your LaCie Storage Utilities CD in PDF format.

Mac Users Using Mac OS 10.x

Use the formatting and partitioning capabilities in the Apple Disk Utility. Please refer to your Mac OS 10.x documentation or online help for instructions.

Please see the SilverKeeper manual for instructions on how to use this software. The manual is located on your LaCie Storage Utilities CD in PDF format.

PC Users Using Windows 2000 and Windows XP

Use the formatting and partitioning capabilities that are included with your operating system. Please see [Chapter 4](#). Partitioning and Formatting Your LaCie Big Disk for more details.

PC Users Using Windows 98 Second Edition (SE) and Windows Me

You have the option of using Silverlining 98, included with your drive, or using the formatting and partitioning capabilities in your operating system. Please see [Chapter 4](#). Partitioning and Formatting Your LaCie Big Disk for more details.

2. Getting To Know Your LaCie Big Disk

What can your external hard drive system do?

- Store and exchange data between several computers.
- Back up your computers' internal hard drive.
- Store files created by your various applications.

2.1 Minimum System Requirements

Hardware Requirements:

- Mac or PC equipped with FireWire/IEEE 1394/iLink interface card (SBP-2 compatible) that supports mass storage devices.



Note: If you only have a 4-pin connector on your FireWire interface card, you will need to purchase a 4-to-6 pin FireWire cable.

System Requirements:

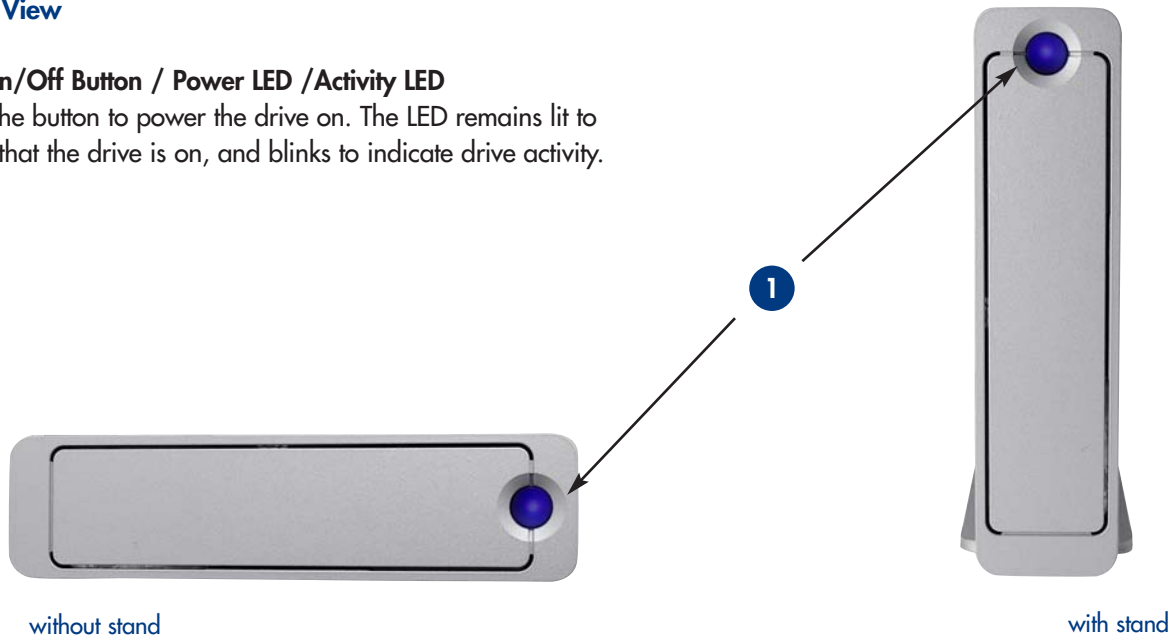
- Mac OS 8.6, 9.x (Apple FireWire support 2.3.3 and greater) and 10.x
- Windows 98 SE, Windows Me, Windows 2000 and Windows XP
- Intel Pentium II/350MHz-compatible processor or greater; minimum 64MB RAM

2.2 LaCie Big Disk - Views

Front View

1 – On/Off Button / Power LED / Activity LED

Push the button to power the drive on. The LED remains lit to show that the drive is on, and blinks to indicate drive activity.



Back View

1 – Power Supply Connector

This is where you plug in the AC adapter supplied with the drive.

2 – FireWire Connectors

Where you plug in the FireWire cable furnished with the drive.

3 – Ventilation Outlet

Helps to keep your drive cool during operation. Be sure not to block this opening when using your drive.

4 – Lock Slot

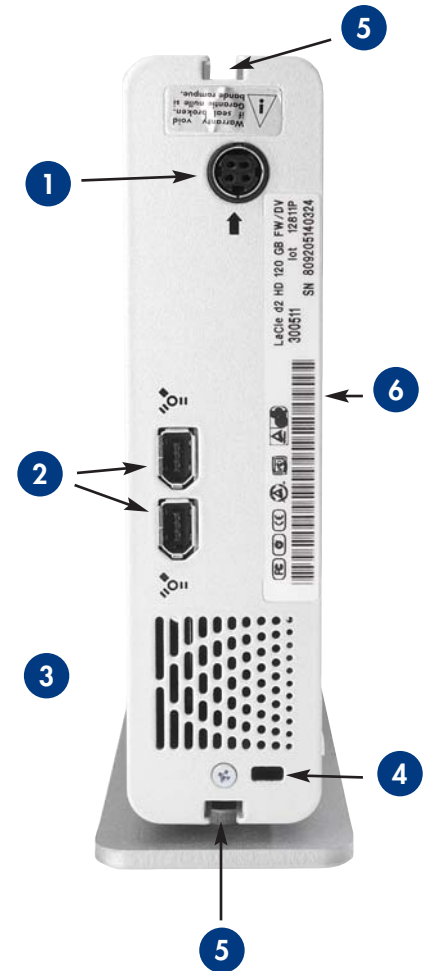
This slot is used to connect a Kensington'-type anti-theft system for maximum protection. Refer to your anti-theft system documentation for details on how to connect the lock.

5 – Rackmount Grooves

Used for mounting the drive's stand (see the [Attaching the Drive Stand](#) section for instructions), and for mounting your drive with the rackmount kit (sold separately).

6 – Serial Number Sticker

This is where you will find your LaCie drive's serial number. Write down the serial number and keep it in a safe place, because you will need to provide the number in the event you have to call LaCie Technical Support for any reason in regards to the drive's performance. The serial number would also come in handy if your drive is lost or stolen.



Side View

1 – Rackmount Grooves

Used for mounting the drive's stand (see the [Attaching the Drive Stand](#) section for instructions), and for mounting your drive with the rackmount kit (sold separately).



2.3 Attaching the Drive Stand

You can use your LaCie drive in its upright position after installing the drive stand.

- 1) Using the hex key (provided with the drive stand kit), loosen the two screws on the bottom of the foot plate (do not remove the screws) to create a degree of separation between the foot plate and the two rails.
- 2) From the rear of the drive, separate the two rails and slide the larger stand rail into the side groove of your LaCie drive as shown.
- 3) Slide the stand forward until its rail touches the front of the drive.
- 4) Tighten the two socket screws from the underside of the stand, using the hex key, until the stand is firmly in place.
- 5) When the stand is mounted, your drive should look like this:



2.4 FireWire Cables and Connectors



FireWire Cables

There are three types of FireWire cables on the market: 6-to-4-pin, 6-to-6-pin and 4-to-4-pin. LaCie FireWire peripherals are supplied with a 6-to-6 pin FireWire cable. Most FireWire-equipped laptop computers feature 4-pin FireWire connectors, so to connect your LaCie drive to a laptop, you will need to purchase a 4-to-6-pin cable.



Important Note: *If the cable supplied with the LaCie drive does not meet your requirements, please contact your computer supply specialist.*

3. Setting Up Your LaCie Big Disk

Connecting the Power Supply

To operate the drive, you must use the AC adapter supplied with it.



Warning! Use only the AC adapter supplied with your LaCie drive. Using any other power cable may cause damage to the device and void your warranty.



Important Note: You may use your LaCie drive when in a foreign country, thanks to its auto-switching 100-240 Volt power supply. To be able to use this feature, you may need to purchase an appropriate adapter. Consult LaCie Technical Support for assistance in choosing the right adapter. LaCie accepts no responsibility for any damage to the drive resulting from the use of an inappropriate adapter. Using an adapter other than one authorized by LaCie will void your warranty.

Connecting the AC Adapter to the Drive

- 1) Insert the round, four-pin metallic plug of the AC cable into the power input located at the rear of the drive.
- 2) Connect the wall-side plug to a power socket.

Disconnecting the AC Adapter from the Drive

- 1) Turn the drive off and wait for it to spin down (+/- 10 sec.).
- 2) Hold the drive steady with one hand, then remove the plug from the connector.



Warning! Always remove the AC adapter before transporting your LaCie drive. Failure to remove the adapter may result in damage to your drive and will void your warranty.

3.1 Installing Your LaCie Big Disk

Mac Users

Mac OS 10.x

You will not need to install any drivers or additional software. Simply connect the FireWire cable from your LaCie Big Disk to your computer, and the hard drive system will automatically mount to your desktop. You can then use the formatting and partitioning capabilities in the **Apple Disk Utility** to configure your hard drive system. Please refer to your Mac OS 10.x documentation or online help for instructions.

Mac OS 8.6 and 9.x

To use your new LaCie Big Disk, first install the necessary driver software.

Silverlining Pro Installation

- 1) Insert the LaCie Storage Utilities CD in your computer's internal CD/DVD drive.
- 2) Open the CD icon and double-click on **LaCie Installer**.
- 3) The Silverlining Utilities screen appears. Click on **Continue**.
- 4) The **About to Install** screen appears. Read the following information and click on **Continue**.
- 5) The **License Agreement** screen appears. Click on **Agree**.
- 6) The **Installation** screen appears.
- 7) Check the **Silverlining Pro** and **FireWire Support** boxes.
- 8) Click on **Install**.
- 9) A message appears to confirm that the installation was successful.
- 10) Click on **Restart** to use your FireWire peripheral immediately.

Hardware Installation

- 11) Connect the AC adapter to your LaCie Big Disk (as described above) and turn it on using the on/off button on the front of the drive.
- 12) Connect the FireWire cable from your LaCie Big Disk to the FireWire port of your computer.
- 13) The drive should then automatically mount onto the desktop. An icon with the name "LaCie Hard Drive" (or similar) should be visible.
- 14) Once the drive is visible, you can use it in the same way you use your computer's internal hard drive.

SilverKeeper Installation

LaCie SilverKeeper allows you to easily and reliably backup your important information. For instructions on how to use SilverKeeper, please see the User's Guide located in the SilverKeeper folder in PDF format.

Mac OS 9.x and 10.x

- 1) Insert the LaCie Storage Utilities CD in your computer's internal CD/DVD drive.
- 2) Open the CD icon and double-click the **SilverKeeper Installer**.
- 3) The **SilverKeeper** screen will appear. Click on **Continue**.
- 4) Next, the **SilverKeeper Installer 1.0.1** Read-me screen will appear. This screen contains important information regarding the SilverKeeper program. Read this information then click **Continue**.
- 5) The **SilverKeeper Software License Agreement** screen appears. Read the information then click **Agree**.
- 6) The **SilverKeeper Installer 1.0.1** screen will appear. Click **Install**.



Important Note: Mac OS 10.x Users! *The following prompt will appear before installation begins: "Do you want to install SilverKeeper into your User space, or System space (requires administrative privileges)?" If you have administrative privileges with your system, choose the System space. If not, choose the User space.*

- 7) Finally, the **Installation was successful** screen will appear. Click **OK**, and you are now ready to begin using SilverKeeper.

PC Users**Installation of Drivers for Windows 98 SE, Windows Me, Windows 2000 and Windows XP**

After the first connection of a FireWire-based peripheral, Windows detects the drive, and will install it automatically as a new peripheral, even if you have previously installed it on another port on the same FireWire bus. Let Windows install the FireWire drivers of your LaCie drive.

Hardware Installation

To install your LaCie Big Disk using a Windows 98 SE, Windows Me, Windows 2000 and Windows XP system, please follow these procedures:

- 1) Power on both the computer and the LaCie Big Disk.
- 2) Once the computer's desktop is displayed, connect the hard drive system, via the FireWire cable shipped with your drive, to your computer.
- 3) Now you will be able to format and partition the drive to suit your needs. Please see [chapter 4](#). Formatting and Partitioning Your LaCie Big Disk.

3.2 Installing Multiple FireWire Peripherals

FireWire allows for the connection of up to 63 devices on the bus, with a maximum of 16 devices on one branch. FireWire devices can be connected on a chain and do not necessarily need a hub. Simply connect the first peripheral to a FireWire port on your computer. Connect the second peripheral to the other FireWire port on the first drive etc., using the cables provided with your drives.

3.3 Disconnecting Your LaCie Big Disk

FireWire external devices feature “plug & play” connection. This means that your drive can be connected and disconnected while the computer is running. To prevent failures, it is important you follow these steps when disconnecting your FireWire peripheral device.



Warning! Do not disconnect the USB or FireWire cable when the drive is reading or writing. Disconnecting while the drive is operating could cause the loss of data. Make sure that your drive is not reading or writing and that the activity LED is off before disconnecting the USB or FireWire cable.

Mac Users

You must unmount the hard drive system before disconnecting it or powering it down. Either:

- Drag the hard drive icon to the trash.
- Launch Silverlining Pro, highlight the hard drive and select “Unmount.”

The drive can now be disconnected.

PC Users



Important Note: Windows 98 SE Users: If you have installed the Windows Storage Supplement Update, you will have to unmount the drive before disconnecting it or powering it down. If you have **not** installed the update, simply disconnect the drive when it is not active. No unmounting is required.

- 1) From the System Tray (located in the lower right-hand side of your screen), click on the **Eject** icon (a small green arrow over a hardware image).



- 2) A message will appear, detailing the devices that the **Eject** icon controls, i.e. “Safely remove...” Click on this prompt.
- 3) You will then be given the following message: “Safe to Remove Hardware” (or similar). It is now safe to disconnect the device.

4. Formatting and Partitioning Your LaCie Big Disk

Once you have set-up your LaCie Big Disk, you can reformat or partition it to suit your needs.

4.1 Mac Users

- Mac OS 8.6 and 9.x – Install and use LaCie Silverlining Pro, which is included with your drive.
- Mac OS 10.x – Use the **Apple Disk Utility** application, which is native to the operating system.

For instructions on installing and using Silverlining Pro, please refer to the Silverlining manual, located on your LaCie Storage Utilities CD, in PDF format.

For instructions on using the Mac OS 10.x **Apple Disk Utility** application, please refer to the section below.

Formatting and Partitioning Using Mac OS 10.x



Warning! *Following these steps will erase anything that is on the hard drive. Therefore, if you have information that you want to protect or continue to use, backup this information before performing these steps.*

- 1) Connect the drive to the computer via the FireWire or USB port.
- 2) Once the drive mounts onto the desktop, go to the **Menu Bar**, and open **Go**.
- 3) From the **Go** menu, click on **Applications**.
- 4) In the **Applications** menu, open the **Utilities folder**, and then double-click **Disc Utility** from the Utilities folder.
- 5) The **Disc Utility** window will open. In the left side of the window will be a list of the available hard disk drives. You should see a volume that represents your internal hard drive, and one that reads **LaCie**.
- 6) Select the **LaCie** drive, and then click on the **Partition** tab.
- 7) From the **Volume Scheme:** button, choose the number of partitions you want to divide the drive into by clicking on the pull down menu starting with **Current** (Mac OS 10.x gives you the option of dividing the drive into at most 8 partitions). You can customize the size of the partitions by using the slide bar between the partitions in the **Volume Scheme:** area.
- 8) In the **Volume Information** section, create a name for each partition, choose the volume format (Mac OS Extended, Mac OS Standard or UNIX File System) and the volume size.



Important Note: Please refer to *Chapter 5. Technical Information, section 5.3 Mac OS Standard vs. Mac OS Extended*, for a more detailed discussion on the differences between the two systems.



Important Note: Apple recommends that unless you have a specific reason to use the UNIX File System (UFS), you should use the Mac OS Extended format since it provides a more familiar experience to Macintosh users.

- 9) In the **Options** section, click the **Install Mac OS 9 Disk Drivers** box if you plan on sharing the drive between the Mac OS 9.x and Mac OS 10.x.
- 10) Once you have finalized the volume format, number of partitions, size and options, click **OK**. The following message will appear: **"Warning!** Saving the new volume will erase all existing volumes. This can NOT be undone. Are you sure you want to do that?" Click **Partition** to continue.
- 11) Mac OS 10.x will automatically setup the disk with the partitions and volume format you selected, and your new drive will be available for use.

4.2 PC Users

- Windows 98 SE and Me – Install and use LaCie Silverlining 98, which is included with your drive.
- Windows 2000 and XP – Use the Disk Management Utility, which is native to the operating system.

For instructions on installing and using Silverlining 98, please refer to the Silverlining manual, located on your LaCie Storage Utilities CD, in PDF format.

Formatting and Partitioning Using Windows 2000 and Windows XP

The process of formatting and partitioning a drive on a computer running Windows 2000 or Windows XP consists of two steps: (1) installing a signature on the drive, and (2) partitioning/formatting the drive. These steps will erase anything that is on the disk.

- 1) Connect the drive to the computer via the FireWire port.
- 2) Right-click **My Computer** and click **Manage**.
- 3) From the **Computer Management** window, select **Disk Management** (located below the Storage group).
- 4) If this is the first time the drive is being formatted, Windows 2000 will launch the **Write Signature Wizard** (Write Initialize Wizard in Windows XP). Click **Next**.

- 5) Windows will list the new drive(s) attached. If you are formatting a single drive, only one drive should be visible. Select the checkbox next to the drive and click **Next**.
- 6) Click **Finish** to exit the Wizard.
- 7) Now, with the disk management window open, a new drive will be visible. Right-click on the available space and select **Create Partition...**
- 8) This will bring up the **Create Partition Wizard**. Click **Next**.
- 9) Select **Primary Partition**. Click **Next**.
- 10). Here you must specify partition size. It is recommended that you leave the partition set to the maximum available size, unless you want multiple partitions on the same drive. Click **Next**.
- 11) Select **Assign drive letter** and select the desired letter for the drive. Click **Next**.
- 12) Select **Format this partition...** and then select a file system:

FAT32

FAT32 is a file system that is compatible with Windows 98 SE, Windows Me, Windows 2000 and Windows XP; however, it has limitations. In Windows 2000 and Windows XP, you will not be able to create a partition greater than 32GB.

NTFS

NTFS is a newer file system that is compatible only with Windows NT, Windows 2000 and Windows XP. It has fewer limitations than FAT 32 and will enable a partition to be created that is larger than 32GB.



Important Note: Please refer to [Chapter 5. Technical Information](#), under section, 5.2 FAT 32 vs. NTFS, for a more detailed discussion on the differences between the two systems.

- 13) Click **Next**.
- 14) Click **Finish**.
- 15) **Disk Management** will create the partition and begin formatting the drive. Once completed, close **Disk Management** and your new drive will be ready to use.

Formatting and Partitioning Using Windows 98 SE and Windows Me



Important Note: *If you want to create a new partition and format the drive, you should install and use Silverlining 98. For complete instructions on how to use Silverlining 98, please refer to the User's Manual included in PDF format on the LaCie Storage Utilities CD-ROM.*



Warning! *Users utilizing Windows 98 SE or Windows Me should only follow these steps if a partition has already been created and you want to format the drive again.*

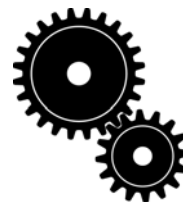
If you wish to utilize the native disc utilities programs on Windows 98 SE or Windows Me, the drive needs to be assigned a letter, and then formatted. Be sure to start this process with the drive disconnected.

- 1) Right-click **My Computer**. Select **Properties**.
- 2) Click the **Device Manager** tab.
- 3) Ensure that **View devices by type** is selected. Expand the menu next to **Disk Drives** by clicking the + sign, and current hard drives connected to the computer will be listed. Next, connect the hard drive and click **Refresh**. A new drive should be listed. Double-click on the new drive.
- 4) Click the **Settings** tab.
- 5) If selected, deselect the **Int 13** unit option, and select **Removable**. With the removable box checked, you will be able to assign the drive a new letter below (be sure you select a letter that is not already in use by another drive).
- 6) Click **OK**.
- 7) In most cases, Windows 98 SE and Windows Me will warn you that you have made changes to the hardware settings, and will ask if you want to shut down your computer. Click **Yes**.
- 8) Power the computer back on.
- 9) After Windows reboots, open up **My Computer**.
- 10) Right-click on the new drive (with the letter it was assigned), and select **Format**. Proceed to format the drive (time will vary depending on the drive size).

5. Technical Information

5.1 User Advice When Using FireWire

The following technical information relates to your LaCie Big Disk and gives some practical advice:



Power Autoswitching

Your LaCie Big Disk comes with an autoswitching power supply. This means that if the drive is connected to a FireWire connector on your computer, when you turn on the computer, the LaCie drive will turn on automatically. Likewise, when you turn off your computer, your LaCie drive will turn off automatically.



Important Note: *The Power Autoswitching feature is not supported by non-powered FireWire buses (i.e. iLink ports or certain add-on IEEE 1394 host-adapters). You will need to use the on/off button on the front of the LaCie Big Disk to turn the drive on or off.*

Power Save

The LaCie Big Disk manages power consumption. If the system's power save feature supports it, the drive will spin down during the power save mode. After the system comes out of power save, the drive will take a few seconds to spin up to full power before it can be accessed.

Data Transfers

During data transfers, it's best to wait before launching other applications on same FireWire port. Anomalies may arise with computers that have FireWire controllers that do not conform to OHCI (Open Host Controller Interface) standards. Your product has been tested and checked on computers with Intel or Apple FireWire platforms. In any other configurations, we cannot ensure 100% correct operation. Due to this, you may encounter hanging problems. If this happens, proceed as follows:

- 1) Make sure that the FireWire cable is connected tightly and securely on both ends of the cable, from the drive to the computer. If you are using a FireWire cable other than the one supplied with your LaCie Big Disk Hard Drive, check that it is FireWire (IEEE 1394) certified. The cable that is provided with your LaCie drive is FireWire (IEEE 1394) certified.



Warning! *Do not connect FireWire cables so that they form a ring of devices. There is no need for terminators on FireWire devices, so the unused FireWire connectors should be left empty.*

- 2) Check that the power supply and ground connection are seated properly.
- 3) Disconnect your computer's FireWire cable. Wait 30 seconds. Reconnect.

4) Check the Windows 98 SE version installed on your computer. Supported versions of Windows 98 SE are 4.10.2222A and above. To check the version number, you need to execute the program **Systems**.

5) To proceed, launch the following command from the Windows **Task Bar: Start > Settings > Control Panel > System**.

If your FireWire drive is still not recognized, or if you encounter any difficulties, check the type of FireWire controller available in your computer. You can access it from the Task Bar of Windows. Proceed as follows:

1) Double click on **Start**:

- a- Double click on **Settings**
- b- Double click on **Control Panel**
- c- Double click on **System**

2) Go to Peripheral manager and double click on **IEEE 1394 Bus Controller**.

3) The IEEE 1394 controller type appears on the second line.

4) Double click on this line and note the information which follows in order to communicate it to your dealer's technical support:

- Peripheral type
- Manufacturer
- Equipment version
- Peripheral state

Available Storage Capacity

In order to utilize a hard disk drive, it has to be formatted first. Formatting a disk consists of the following: the operating system erases all of the bookkeeping information on the disk, tests the disk to make sure that all of the sectors are reliable, marks bad sectors (i.e., those that are scratched) and creates internal address tables that it later uses to locate information. Once formatted, the actual available storage capacity is generally about 5% less than the non-formatted capacity. So, if for example, your drive system has a non-formatted capacity of 500GB, after formatting, the drive will actually have a capacity of roughly 475GB.

5.2 FAT 32 vs. NTFS

There are basically two file system formats for PCs: FAT 32 and NTFS. Performance is very similar between the two systems, and the following information will hopefully make choosing one or the other a little easier.

FAT 32

FAT is an acronym for File Allocation Table, which dates back to the beginnings of DOS programming. Originally, FAT was only 16 bits, but after the second release of Windows 95 it was upgraded to 32 bits, hence the name FAT 32. In theory, FAT 32 volume sizes can range from less than 1MB all the way to 2TB. It is the native file system of Windows 98 and Windows Me, and is supported by Windows 2000 and XP. When FAT 32 is used with Windows 2000 and XP, though, volume size is limited to 32GB (by the Windows partition utility, i.e. Disk Manager), and the individual file size is limited to 4GB.

NTFS

This acronym stands for New Technology Filing System, and it is the native file system for Windows NT, Windows 2000 and XP. NTFS offers several features that are not available with FAT 32; i.e. file compression, encryption, permissions, and auditing, as well as the ability to mirror drives and RAID 5 capabilities. The minimum supported volume size for NTFS is 10MB, with a maximum of 2TB, with no limit to file size. Volumes created in NTFS can only be directly accessed (not through shares) by Windows NT, Windows 2000 and XP, without resorting to help from third-party products.

Guidelines for Choosing FAT 32 or NTFS

Use FAT 32 if:

- You will be dual booting with an Operating System other than Windows NT or Windows 2000.
- You want to access the stored volumes on any Operating System other than Windows NT, Windows 2000 or XP.
- You may need the ability to dual boot down the line. Once you have converted a volume from NTFS to FAT 32, there is no going back. You can convert from FAT 32 to NTFS, but not the other way around.
- You want to connect to a Mac and have access to the data.

Use NTFS if:

- You want to encrypt files, assign permissions to files, or want to audit files for access.
- You will be formatting partitions larger than 32GB.
- You need to store individual files that are larger than 4GB.
- You need a filing system that can be mirrored or structured like a RAID 5 configuration.

5.3 Mac OS Standard vs. Mac OS Extended

There are basically two file systems for the Mac OS: Mac OS Standard (HFS) and Mac OS Extended (HFS+).

Mac OS Standard

Mac OS Standard refers to the file system used by Mac OS 8.0 and earlier. This was the original Hierarchical File System employed by Apple, and was used before computers really began to see dramatic increases in hard disk drive sizes. In HFS, the disk is divided into a maximum of 65,536 equal-sized blocks, with these blocks being the destination point of data stored by the Mac.

Initially, these spaces were small, due to the lack of size in hard drives (i.e. hard drives smaller than 1GB), but as hard drive space increased, the file system became inefficient. With HFS, even the smallest file on any disk has to occupy at least one block. For example, if you had a 4GB hard drive and divided it by 65,536, that would equal roughly 64K, and that would be the smallest block size under HFS. So, if you had a file that was only 4K, it would still have to occupy 64K.

Mac OS Extended

Mac OS Extended refers to the file system used by Mac OS 8.1 and later. HFS+ represents an optimization of the older HFS file system by using hard disk space more efficiently. As hard disk capacity increased over the years, Apple realized that they needed to improve the space-saving capabilities of their file system. Building off of HFS, they increased the number of blocks from 65,536 to 4.29 billion. With HFS+, you are no longer limited by block size. Now, for example, if you have a 4K file, it will only take up 4K of space.

Guidelines for Choosing Mac OS Standard or Mac OS Extended

This is actually a fairly easy decision. You should only use Mac OS Standard if you are creating a volume smaller than 32MB, you are using a Mac with a 680X0 processor or you are creating a file structure that will need to be used by Macs using Mac OS 8.0 or earlier. Otherwise, you should

6. Troubleshooting

In the event that your LaCie Big Disk is not working correctly, please refer to the following checklist to find out where the problem is coming from. If you have gone through all of the points on the checklist and your drive is still not working correctly, please have a look at the FAQs that are regularly published on our Web site – www.lacie.com. One of these FAQs may provide an answer to your specific question. You can also visit the drivers pages, where the most recent software updates will be available.

If you need further assistance, please contact LaCie Technical Support (see [Chapter 7](#). Contacting Customer Service for details).

The Problem	Questions to Ask	Possible Solutions
The drive is not recognized.	Does an icon for the drive appear on the computer?	Check for an icon on the Desktop (on a Mac) or in My Computer (on a PC).
	Is the drive powered up?	Check the drive's power cable. Make sure the Power LED is on.
	Are both ends of the FireWire cable connected and properly seated?	Check both ends of the FireWire cable. Disconnect them, wait 10 seconds, and reconnect them. If the drive is still not recognized, restart your computer and try again.
	Has the correct drive installation procedure been followed?	Review the installation procedure described in Chapter 3 . Setting Up Your LaCie Hard Drive.
	Are the FireWire drivers installed correctly and enabled?	Windows 98 SE & Me Users: Go to Start > Settings > Control Panel > System > Device Manager > IEEE 1394 Controller > click on the plus sign next to the controller icon, and you should see your device listed.

The Problem

The drive is not recognized.

Questions to Ask

Are the FireWire drivers installed correctly and enabled?

Possible Solutions

Windows 2000 Users: Go to Start > Settings > Control Panel > System > Hardware tab > Device Manager button > IEEE 1394 Controller > click on the plus sign next to the controller icon, and you should see your device listed.

Windows XP Users: Go to Start > Control Panel > Performance and Maintenance > System > Hardware tab > Device Manager button > IEEE 1394 Controller > click on the plus sign next to the controller icon, and you should see your device listed.

Mac Users: Open Apple System Profiler and click on the Devices and Volumes tab. If your device is not listed, recheck the cables and try the other troubleshooting solutions listed here. If you cannot see the device, recheck the cables and try the other troubleshooting solutions listed here.

Is there a conflict with other device drivers or extensions?

Contact LaCie Technical Support.

Does your computer's configuration meet the minimum system requirements for use with this drive?

Check [section 2.1](#) Minimum System Requirements.

The drive is working slowly.

Are other FireWire devices connected to the same port in a daisy chain?

Disconnect any other FireWire devices and see if performance improves.

7. Contacting Customer Support

Before You Call Technical Support

- 1) Read the manuals and review the **Troubleshooting** section.
- 2) Try to isolate the problem. If possible, make the drive the only external device on the CPU, and make sure all cables are correctly and firmly attached.

If you have asked yourself all of the pertinent questions in the troubleshooting checklist, and you still can't get your LaCie drive to work properly, call us directly using the number below. Before calling, make sure that you are in front of your computer and that you have the following information on hand:

- 1) Your drive's serial number
- 2) Computer brand and model
- 3) Operating system and version (Mac OS or Windows)
- 4) Amount of memory installed
- 5) Names of CD or DVD drives installed on your computer
- 6) Names of any other devices installed on your computer

Technical Support Help Hours

Australia

- Monday through Friday,
9:30am – 5:30pm EST

Contact Us At:

Technical Support:

- (61)2 9669 6900 phone
- support.au@lacie.com

Belgium

- Monday through Friday
9 AM – 5PM

Contact Us At:

Technical Support:

- (0)2 639 14 71
- support.be@lacie.com

Canada

- Monday through Friday,
9:30AM – 5:30PM EST

Contact Us At:

Technical Support:

- (416) 530 2545 phone
- (416) 530 2546 fax
- support.ca@lacie.com

Denmark

- Monday through Friday,
9 AM – 5PM

Contact Us At:

Technical Support:

- 45 70 27 65 43
- support.nordic@lacie.com

France

- Monday through Friday,
9 AM – 5PM

Contact Us At:

Technical Support:

- (0)1 69 32 84 23
- support.fr@lacie.com

Germany

- Monday through Friday,
9 AM – 5PM

Contact Us At:

Technical Support:

- (0)211 301 21 111
- support.de@lacie.com

Technical Support Help Hours - continued:

Italy

- Monday through Friday,
9 AM – 5PM

Contact Us At:

Technical Support:

- 02 89 14 09 11
- support.it@lacie.com

Spain

- Monday through Friday
9 AM – 5PM

Contact Us At:

Technical Support:

- 91 44 02 760
- support.es@lacie.com

United Kingdom

- Monday through Friday
9 AM – 5PM

Contact Us At:

Technical Support:

- (0)207 872 18 22
- support.uk@lacie.com

Japan

- Monday through Friday
9 AM – 5PM

Contact Us At:

Technical Support:

- +81-3-5733-2205
- support.jp@lacie.com

Sweden, Norway, and Finland

- Monday through Friday,
9 AM – 5PM

Contact Us At:

Technical Support:

- (0)8 411 60 02
- support.se@lacie.com

USA

- Monday through Friday,
6 AM – 6 PM PST

Contact Us At:

Technical Support:

- 503-844-4503 phone
- 503-844-4505 fax
- support@lacie.com

The Netherlands

- Monday through Friday
9 AM – 5PM

Contact Us At:

Technical Support:

- 0)713 326 830
- support.nl@lacie.com

Switzerland

- Monday through Friday
9 AM – 5PM

Contact Us At:

Technical Support:

- 61 386 80 45
- support.ch@lacie.com

7.1 Warranty

LaCie warrants your Big Disk against any defect in material and workmanship, under normal use, for the period designated on your warranty certificate. In the event this product is found to be defective within the warranty period, LaCie will, at its option, repair or replace the defective hard drive.

This warranty is void if:

- The drive was operated/stored in abnormal use or maintenance conditions;
- The drive is repaired, modified or altered, unless such repair, modification or alteration is expressly authorized in writing by LaCie;
- The drive was subjected to abuse, neglect, lightning strike, electrical fault, improper packaging or accident;
- The drive was installed improperly;
- The serial number of the drive is defaced or missing;
- The broken part is a replacement part such as a pickup tray, etc.
- The tamper seal on the hard drive casing is broken.

LaCie will not, under any circumstances, be liable for direct, special or consequential damages such as, but not limited to, damage or loss of property or equipment, loss of profits or revenues, cost of replacement goods, or expense or inconvenience caused by service interruptions.

Under no circumstances will any person be entitled to any sum greater than the purchase price paid for the drive.

To obtain warranty service, call your LaCie Reseller or LaCie Technical Support. You maybe asked to furnish proof of purchase to confirm that the drive is still under warranty.

All drives returned to LaCie must be securely packaged in their original box and shipped with postage prepaid.

Register online for free technical support: www.lacie.com/register/htm

8. Appendix – FireWire Questions & Answers

What does IEEE 1394 mean?

"1394" is an abbreviation of IEEE-1394, the name given to this high-performance serial bus. IEEE (the Institute of Electrical and Electronic Engineers) is the name of the engineering corps that developed this standard. It just so happens that this is the 1394th standard produced by the IEEE.



What is the relationship between IEEE 1394, FireWire, iLink, and DV?

These four names all refer to the same interface.

- **IEEE 1394** is the name of the standard, as used in the computer industry.
- **FireWire** is the brand name used by Apple to designate the implementation of the IEEE 1394 standard in its products.
- **iLink** is an initiative from Sony to create a brand name based on the IEEE-1394 standard. With iLink, Sony has given IEEE-1394 technology a user-friendly, easily-recognizable face, both for consumer electronics and the computer industry as a whole.
- **DV** is the logo used by video camcorders for the IEEE 1394 port. DV means "Digital Video".

What can the FireWire interface be used for?

With its high data transfer rates, the FireWire interface is great for consumer electronics and video peripherals. It is actually a point-to-point type interface. This means, for instance, that you can link one camcorder to another to make a copy without having to resort to a computer – a FireWire peripheral can in fact transmit data to another peripheral without going through a computer (host control). This lets several computers share a given peripheral. For all these reasons, FireWire has become a widely renowned digital interface and is gaining in popularity every day. Camcorders incorporating a FireWire interface enable you to capture digital video images and transfer them to your computer affordably.

Can I link my FireWire Hard Drive and CD-RW drives together?

At this time, you can daisy chain up to 63 FireWire peripherals on the same bus, with a maximum of 16 peripherals on one branch. Just connect the first device to a FireWire port on your computer, and link the second FireWire connector of this peripheral to a port on the next peripheral, and so on, using the FireWire cables provided. Unlike USB topology, there is no need for hubs, unless one of the peripheral devices only has one FireWire connector.

FireWire sounds great, but my computer is not equipped with it. What can I do?

Nearly all of the newer Macintosh computers, and some PCs, are equipped with FireWire busses. The standard is becoming increasingly common at the time of printing. If your computer is not equipped, it may be possible, depending on your configuration, to add a FireWire PCI or PCMCIA card enabling you to connect your LaCie peripheral. Contact a computer supply specialist for details.

What about FireWire and asynchronous and isochronous data transfer?

The FireWire standard can handle two types of data transfer: asynchronous and isochronous. For traditional memory-mapped computer applications, which involve loading and storage, asynchronous transfer is quite appropriate and suitable. FireWire also handles isochronous data transfer. Isochronous transfer guarantees data transfer at a predetermined speed, which is crucial for multimedia applications. This guarantee of uninterrupted transfer and on demand accessibility of time-critical data allows users to save on the cost of the large buffers that are normally required for such applications.

You will find additional information at the following Internet address:

<http://www.lacie.com/firewire>

9. Glossary

Backup – (1) The act of creating at least one additional copy of data onto a different (and safe) storage device from where it can be retrieved at a later time if needed. (2) A copy of a file, directory, or volume on a separate storage device from the original, for the purposes of retrieval in case the original is erased, damaged, or destroyed.

Bit – The smallest measure of computerized data, either a 1 or a 0. Eight bits equal one byte, or one character.

Block – A very small section of the storage media comprised of one or more sectors. A block is the smallest amount of space allocated on a drive for data storage. By default, a sector of data consists of 512 bytes.

Buffer – RAM cache that is faster than the data that is being delivered. Buffers are used so data may be stored and delivered to the receiving item as it is needed.

Bus – Electronic links that enable data to flow between the processor, RAM and extension cables (peripherals).

Byte – A sequence of adjacent binary digits, or bits, considered as a unit, 8 bits in length. There are 8 bits in 1 byte. See also **MB** (Megabyte) or **GB** (Gigabyte).

Cache, -ing – This is an area of electronic storage (usually RAM) set aside to store frequently used data from electro-mechanical storage (hard drives, floppy disks, CD/DVD-ROM, tape cartridges, etc.) Therefore, storing frequently used data in RAM can enhance your system's overall response to disk-intensive operations significantly.

Configuration – When talking about a PC, configuration is understood to be the sum of the internal and external components of the system, including memory, disk drives, the keyboard, the video subsystem and other peripherals, such as the mouse, modem or printer. The configuration also implies software: the operating system and various device managers (drivers), as well as hardware settings and options set by the user via configuration files.

Controller – This is a component or an electronic card (referred to in this case as a "controller card") that enables a computer to communicate with or manage certain peripherals. The controller manages the operation of the peripheral associated with it, and links the PC bus to the peripheral via a ribbon cable inside the PC. An external controller is an expansion card which fills one of the free slots inside your PC and which enables a peripheral (CD-ROM drive, scanner or printer, for instance) to be connected to the computer.

Cross-platform – Term that refers to a device that is able to be operated by both Mac and Windows operating systems.

Data Stream – The flow of data that accomplishes a task, usually related to moving data from storage to computer RAM or between storage devices.

Digital – Discrete information that can be broken down to zero or one bits.

Driver (peripheral manager) – A software component that enables the computer system to communicate with a peripheral. Most peripherals will not operate correctly – if at all – if the appropriate drivers are not installed on the system.

File System – Links the physical map of a disc to its logical structure. Thanks to the file system, users and computers can easily display path, directories and files recorded onto the disc.

Firmware – Permanent or semi-permanent instructions and data programmed directly into the circuitry of a programmable read-only memory or an electronically-erasable, programmable read-only memory chip. Used for controlling the operation of the computer or tape drive. Distinct from the software, which is stored in random access memory and can be altered.

Folder – A list created on a disk to store files. Creating folders and sub-folders enables you to organize the storage of your files in a logical, hierarchical manner so that you can find and manage them more easily.

Format, -ting, -ted – This is a process where a device is prepared to record data. In this process, the hard disk writes special information onto its own recording surfaces into areas (blocks) that are ready to accept user data. Since this operation causes all current user data stored on the hard disk to be lost, this is an infrequent operation that usually only happens at the factory that created the hard disk. It is unusual for something to happen to a hard disk that requires the end-user to initially perform this operation.

GB (GigaByte) – This value is normally associated with data storage capacity. Basically, it means a thousand million or a billion bytes. In fact, it equals 1,073,741,824 bytes (or $1,024 \times 1,024 \times 1,024$).

Hardware – Physical components of a computer system, including the computer itself and peripherals such as printers, modems, mice, etc.

Host Bus Adapter (HBA) – A printed circuit board that installs in a standard microcomputer and an interface between the device controller and the computer. Also called a controller.

Initialize, -ed, Initialization – After a hard drive (or other storage device) is formatted and partitioned, some special data needs to be written to it that helps the Mac and Windows create files and save data. The process is called initialization. This process, like formatting, causes all user data on the storage device to be lost.

Interface – The protocol data transmitters, data receivers, logic and wiring that link one piece of computer equipment to another, such as a hard drive to an adapter or an adapter to a system bus. Protocol means a set of rules for operating the physical interface, such as: do not read or write before the drive is ready.

I/O (Input/Output) – Refers to an operation, program or device whose purpose is to enter data into or to extract data from a computer.

Kb (Kilobit) – Equivalent to 1,000 bits.

Kb/s – Kilobits per second. 480Kb/s is equal to 60KB/s.

KB (KiloByte) – Basically, this means 1,000 bytes, but it is actually 1,024 bytes.

KB/s – Kilobytes per second. A means of measuring throughput.

Mb (Megabit) – Equivalent to 1,000,000 bits.

Mb/s – Megabits per second. A means of measuring throughput. 480Mb/s is equal to 60MB/s.

MB (Megabyte) – Basically means one million bytes, but is actually 1,024 Kilobytes or 1,024 x 1,024 bytes, which equals 1,048,576 bytes.

MB/s – Megabytes per second. A means of measuring throughput.

Media – The material or device used to store information in a storage subsystem, such as a tape cartridge, CD, DVD or disk drive.

Operating System (OS) – Software that controls the assignment and use of hardware resources such as memory, processor time, disk space and peripherals. An operating system is the basis on which software (applications) run. Windows, Mac OS and UNIX are among the most common.

Overwrite – To write data on top of existing data thus erasing the original data.

Partition, -ing – After formatting, the hard drive is not yet ready to store files. It must be divided into sections that will contain special information required for a Mac or PC to operate and other sections that will contain the files. This process of dividing up the hard drive is called partitioning. A partition is just one section of the hard drive that will contain either special data put there by Silverlining or other files and data.

Peripheral – A generic term applied to printers, scanners, mice, keyboards, serial ports, graphics cords, disk drives and other computer subsystems. This type of peripheral often relies on its own control software, known as a peripheral driver.

Port, hardware – A connection component (SCSI port, for example) that enables a microprocessor to communicate with a compatible peripheral.

Port, software – A memory address that identifies the physical circuit used to transfer information between a microprocessor and a peripheral.

RAM (Random Access Memory) – Generally referred to as a computer's "memory." An integrated circuit memory chip that allows information to be stored and retrieved by a microprocessor or controller. The information can be stored or accessed in any order, and all storage locations are equally accessible.

Seek Time – The amount of time (in thousandths of a second, or milliseconds) that it takes a hard drive's read/write head to move to a specific location on the disk. Average seek, then, is the average of a large number of random samplings all over the disk. Seek time is CPU independent, meaning that seek time is the same for a disk drive, whether it is attached to a computer or not.

Software – In a nutshell, software is a set of instructions for the computer. A set of instructions to perform a particular task is called a program. There are two main types of software: system software (an operating system such as Mac OS or Windows) which controls the operation of the computer and application software (programs such as Word or Excel) which enable users to perform tasks such as word processing, spreadsheet creation, graphics, etc.

Storage – In computers, any equipment in which information may be kept. PCs generally use disk units and other external storage media (diskettes, CD-ROMs, magnetic disks, etc.) for permanent storage of information.

Striping – Spreading data evenly over multiple disk drives to enhance performance. Data striping can be performed on a bit, byte or block basis for optimum application performance.

Transfer Rate – The rate at which the drive sends and receives data from the controller. Transfer rates for reading data from the disk drive may not be the same as the transfer rate for writing data to the disk drive. Transfer rates are CPU dependent, meaning that regardless of how great a transfer rate your drive is capable of, the actual transfer rate can only be as fast as the slowest of your hard drive and computer.

Volume – A desktop mountable storage area, may be a partition of a hard drive, a removable disk or a cartridge. Typically measured in Megabytes or Gigabytes.

Utility – Software designed to perform maintenance tasks on the system or its components. Examples include backup programs, programs to retrieve files and data on disk, programs for preparing (or formatting) a disk or and resource editors.

10. Health and Safety Precautions



Only qualified persons are authorized to carry out maintenance on this device.

- Read this User's Guide carefully, and follow the correct procedure when setting up the device.
- Do not open your hard drive or attempt to disassemble or modify it. Never insert any metallic object into the drive to avoid any risk of electrical shock, fire, short-circuiting or dangerous emissions. Your hard drive contains no user-serviceable parts. If it appears to be malfunctioning, have it inspected by a qualified LaCie Technical Support representative.
- Never expose your device to rain, or use it near water, or in damp or wet conditions. Never place objects containing liquids on the drive, as they may spill into its openings. Doing so increases the risk of electrical shock, short-circuiting, fire or personal injury.
- Make sure that the computer and hard drive are electrically grounded. If the devices are not grounded, there is an increased risk of electrical shock.

General Use Precautions:

- Do not expose the hard drive to temperatures outside the range of 5° C to 45° C (41° F to 104° F). Doing so may damage the drive or disfigure its casing. Avoid placing your drive near a source of heat or exposing it to sunlight (even through a window). Inversely, placing your drive in an environment that is too cold or humid may damage the unit.
- Always unplug the hard drive from the electrical outlet if there is a risk of lightning or if it will be unused for an extended period of time. Otherwise, there is an increased risk of electrical shock, short-circuiting or fire.
- Use only the power supply shipped with the device.
- Do not use the hard drive near other electrical appliances such as televisions, radios or speakers. Doing so may cause interference which will adversely affect the operation of the other products.
- Do not place the drive near sources of magnetic interference, such as computer displays, televisions or speakers. Magnetic interference can affect the operation and stability of your hard drive.
- Do not place heavy objects on top of the drive or use excessive force on it.
- Never use excessive force on your drive. If you detect a problem, consult the "Troubleshooting" section in this manual.
- Protect your hard drive from excessive exposure to dust during use or storage. Dust can build up inside the device, increasing the risk of damage or malfunction.
- Never use benzene, paint thinners, detergent or other chemical products to clean the outside of the drive. Such products will disfigure and discolor the casing. Instead, use a soft, dry cloth to wipe the device.



Note: *The drive's warranty may be void as a result of the failure to respect the precautions listed above.*